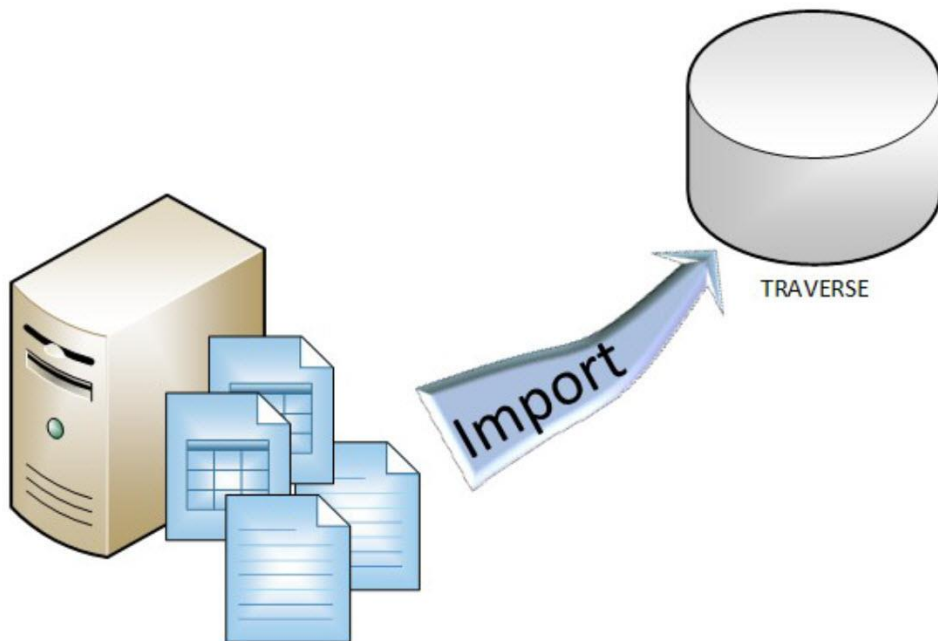




# Data Import Tutorial

A Tutorial for Importing Data into TRAVERSE

Knowledge Base Article



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This document describes the intended features and technology for TRVERSE 11 as of December, 2018. Features and technology are subject to change and there is no guarantee that any particular feature or technology described in this presentation will be present in this or subsequent versions of TRVERSE.

December 2018

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## Introduction

The import process allows you to bring data from a file created by another system into TRVERSE. You can also use the import process when you want to create or update a large number of files in TRVERSE. You create a framework for bringing data into TRVERSE using the import definition functions.

### Functions that have associated import processes include:

- Accounts Payable Transactions
- Accounts Receivable Transactions
- Bank Reconciliation Cleared Transactions
- Bank Reconciliation Transactions
- Customer Relationship Management (CRM) Contacts
- General Ledger Transactions
- Inventory Physical Inventory counts
- Inventory Item Prices
- Manufacturing Bills of Material
- Manufacturing Production Activity
- Payroll Transactions
- SO Transactions
- Sales Order Customer Pricing

## Overview

There are three tasks to complete before you can process any imports:

1. Create an ASCII (txt or csv) **source file**. When exporting data from another system, make sure the other system exports the file in one of the formats listed: comma-delimited, comma-quote delimited, fixed-length field, or fixed-length record.
2. Create an **import layout definition** using the function on the SM Company Setup menu. The import layout definition describes the structure of the source file, and allows you to convert or extend (translate) fields as necessary to ensure the data is imported correctly.
3. Create an **import map definition**. The import map definition allows you to associate fields from the source file with properties (fields) available in an import assembly schema, which routes the source data into the TRVERSE database.

## Source File

A common method of creating a source file such as a comma-delimited file is by using Microsoft Excel. This allows you to easily view the data you will be importing. You also need to know what fields are available for import on the TRVERSE side. There is a detailed list of the available properties (i.e. fields) for each import schema in the [online help](#).

The files from which you want to import data into TRVERSE must be ASCII—plain text—files in one of these formats:

- **Comma-delimited:** Use this format when the fields in the file from which you are importing data are separated by commas. This is the format used when saving an Excel spreadsheet as a .csv format file.
- **Comma-quote delimited:** Use this format when fields are separated by commas, and each field is also enclosed by quotation marks to allow for commas within the field's contents, such as a city and state in the same field, with a comma separating the two.  
An example of this would be a single field for the city and state within an address, such as "Minneapolis, MN." Importing this data using only the comma-delimited format may result in field mismatches due to the data being read as two fields due to the comma in the field's contents, instead of one field. If this field is imported using the comma-quote delimited format, it is read correctly as a single field.
- **Fixed-length field:** Use this format when records are separated by a return character (CRLF) and the fields within the records are specific lengths.
- **Fixed-length record:** Use this format when all records in the file are the same width (allowed number of characters) and the fields within the records are the same width.  
An example of this format would be a file in which each record is 50 characters wide and contains five fields, each of which are 10 characters wide. The records in this type of file would follow one another end to end every 50 characters, instead of being separated by return characters.

## Import Layout Definition

Before you start building your import layout definition and the import map definition, figure out how the source file will be laid out by setting up the source file you will be importing before you design the layout definition to match your source file.

The import layout definition defines the structure of the source file for TRVERSE, and allows you to convert or extend (translate) fields as necessary to ensure the data is imported correctly. When you create a new Import Layout Definition, you also have an option to filter the source data, in case there are records you do not want to import into TRVERSE, saving extra maintenance later on.

The basic steps to create an import layout definition include the following:

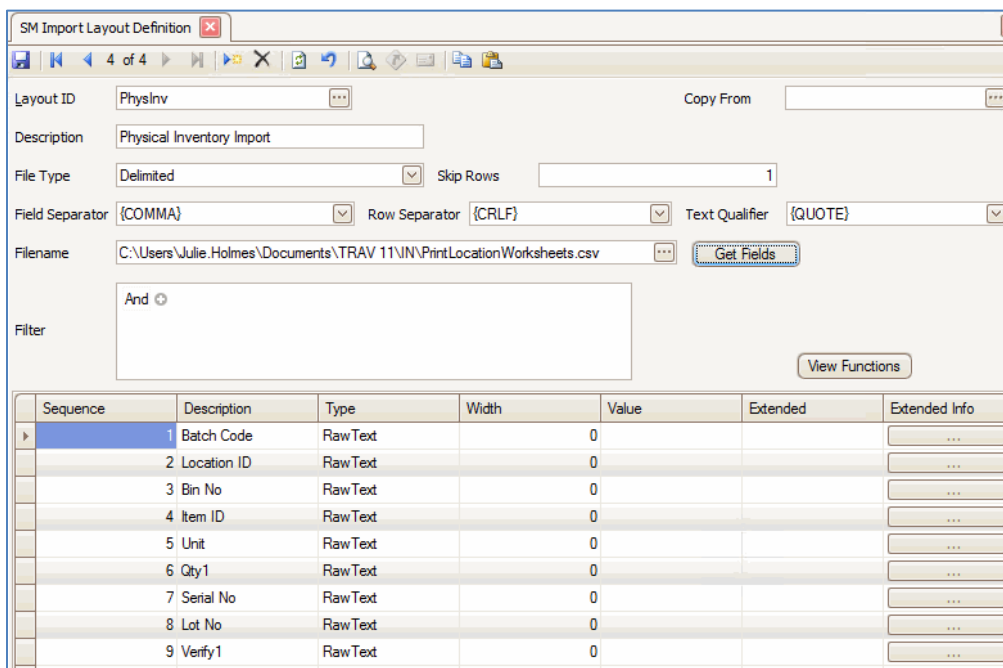
1. Create a new layout ID and a description for the layout.
2. Select a file type that describes the plain-text source file. The most common file type is 'Delimited'. If you have a fixed width file (fixed-length fields or fixed-length records), select 'Fixed Width'.
3. Enter the number of rows the system should skip before importing the data. Usually you will have a title row for the columns. In this case you would enter '1' to skip the first row.

4. Select the field separator used in the source file to separate the fields. A comma is the most common separator, but if your source file uses quotation marks, tabs, or spaces to separate fields, select the appropriate value.
  
5. Select the row separator used in the source file. The most common separator is the 'CRLF' (carriage return line feed). Some text files may use only the carriage return (CR) or the line feed (LF), not both. If you are using fixed-length records, use the 'None' option (no record separator is needed because each record is the same length).
  
6. Select the text qualifier that is used when a field separator occurs within a field. For example, if a comma is used as the field separator, and the city and state are in a single field separated by a comma within the field, the text qualifier—most commonly quotes—is placed around the field value to ensure the value is considered one field rather than two.
  
7. You have the option to either enter the path and filename where the source file is located, or browse to the source file. Although you are not required to enter a filename until the actual import, by doing so at this point you can take advantage of the Get Fields function, which directs the system to read the column names from the source file and fill in the detail grid. This saves you time entering the column names.

**Note 1:** The Get Fields function will only work if the first row of the source file contains column headings.

**Note 2:** If you do not have a path and filename selected, enter the column names from the source file into the detail grid with a data Type of 'RawText'.

**Note 3:** All the fields, including numeric or date fields, will be imported as a data type of 'RawText'.



8. The column width value will be set to '0' unless it is a fixed-length source file. Then the length of the fields will appear. You can adjust the width value of the fields as needed.
9. You can enter a default value to be imported for fields that have no value in the source file. An example of this would be '0' as the default value for any records imported with no value in that field, as long as the field is not a RawText field.
10. If the TRVERSE destination field data type is not text (string), you must convert the source field from one data type to another, such as from text to number, remove leading or trailing spaces from the imported value, or pull only a portion of the imported value, among other things. You can view the conversion functions available in the [online help](#).
11. When you use a function to translate a value, you must set up a record for the translation function. In the record for translation, enter a different name for the field, along with the data type the final field should have. This is where the data type comes in. When we import those values, we need to convert them from RAWTEXT to the appropriate data type. To do this, we create a new field and use the CONVERT function for each value that must be translated.
12. If field values from a source have counterparts in the TRVERSE system, but the values do not match, enter "equivalent" values for those fields. For instance, if the source file uses letter-number designations for bin numbers, and the TRVERSE system uses different letter-numbers to designate the same bins, you can have the import function replace those source values with their TRVERSE equivalents, such as "18" in the source file is equivalent to "A-03" in TRVERSE. The easiest way to do this is to use the **Extended Info** button to open the AddExtentionForm window, where you can enter the value in the source file in the **Values From** column, and the equivalent TRVERSE value in the **Values To** column. Click the **OK** button when finished.
13. Save the layout definition.

**TIP:** If you want to filter records from the source file during the import, such as excluding certain bins or items, or including only certain lots or locations, use the **Filter** field to create a data filter as you would for interactive views.

## Import Map Definition

The Import Map Definition matches the source file fields to the TRVERSE destination file fields. This allows the imported data to be stored in the correct location(s) in the system.

The import maps are based on TRVERSE program components called assemblies. Some assemblies are provided with the software, but you can also create custom assemblies for specific purposes.

The basic steps to create an import map definition include the following:

1. Create a new import map ID.

2. Select a function ID for the map definition. Use the 'Default' option unless you are importing IN Item Price (IN Pricing) or SO Customer Pricing (Pricing).
3. Enter a description for the import map.
4. Find the assembly to use for the import. The assemblies are located in the TRAVERSE directory.

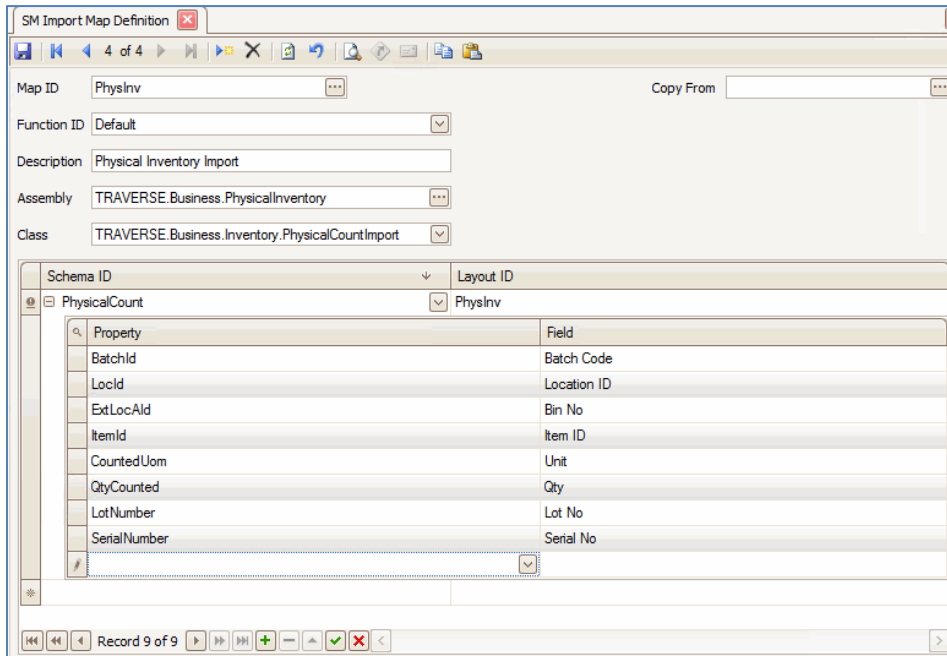
Import Function	Assembly	Class
AP Transactions	TRAVERSE.Import.APTransaction	TRAVERSE.Import.AccountsPayable.TransactionImport
AR Transactions	TRAVERSE.Import.ARTransaction	TRAVERSE.Import.AccountsReceivable.TransactionImport
Bank Rec Cleared Trans	TRAVERSE.Business.BankRec	TRAVERSE.Business.BankRec.ClearedTransImport
Bank Rec Transactions	TRAVERSE.Business.BankRec	TRAVERSE.Business.BankRec.TransactionImport
CRM Contacts	TRAVERSE.Business.CRM	TRAVERSE.Business.CRM.ContactImport
General Ledger Transactions	TRAVERSE.Business.GeneralLedger	TRAVERSE.Business.GeneralLedger.TransactionImport
Physical Inventory	TRAVERSE.Business.PhysicalInventory	TRAVERSE.Business.PhysicalCountImport
Inventory Item Pricing	TRAVERSE.Import.INItem	TRAVERSE.Import.INItem.ItemPriceImport
MFG BOM	TRAVERSE.Import.MfgBom	TRAVERSE.Import.Manufacturing.AssemblyHeaderImport
MFG Production Activity	TRAVERSE.Import.MfgProduction	TRAVERSE.Import.Manufacturing.ProductionActivityImport
Payroll Transactions	TRAVERSE.Business.PATransaction	TRAVERSE.Business.Payroll.TimeTicketImport
Sales Order Transactions	TRAVERSE.Import.SOTransaction	TRAVERSE.Import.SOTransaction.SOTransactionImport
Sales Order Customer Pricing	TRAVERSE.Import.Pricing	TRAVERSE.Import.Pricing.CustomerPricingImport

5. Once you select an assembly, select an available class to use for the import. Each class holds one or more schemas that contain a list of properties available to receive imported data into a TRAVERSE file.
6. Select the applicable schema from the class, as there may be more than one schema available. A detailed list of available properties (i.e. fields) for the import schema is in the [online help](#).
7. Select a layout definition you created for the import.
8. Expand the properties grid of the schema by clicking on the plus sign. This is where you will map the TRAVERSE fields to the source file fields. **NOTE:** You do not have to use all the fields listed in the Property drop-down list. There may also be fields in the layout that you do not use for the import.



9. Select a schema property (field), and then select the corresponding layout field. Repeat the process until you have selected all the fields you want to import from the source file.

**TIP:** The words ‘property’ and ‘field’ are used interchangeably. Due to the labeling of each on the Import Map Definition screen, ‘property’ refers to the TRAVERSE fields receiving the data, and ‘field’ refers to the source fields sending the data.



10. **Save** the import map definition.

## Import Workflow – single level import

For this portion of the tutorial, we will walk through a sample single-level import, in this case for physical inventory counts. Because we are conducting an import of physical inventory counts for our example, *make sure you follow the physical inventory process up to the point of count entry*. Then proceed with the import.

For physical inventory counts, the important pieces of information include:

- Item number (Item ID)
- Inventory location (Location ID)
- Bin location (if applicable)
- Lot number (if applicable)
- Serial number (if applicable)
- Unit of measure (UOM)
- Quantity counted

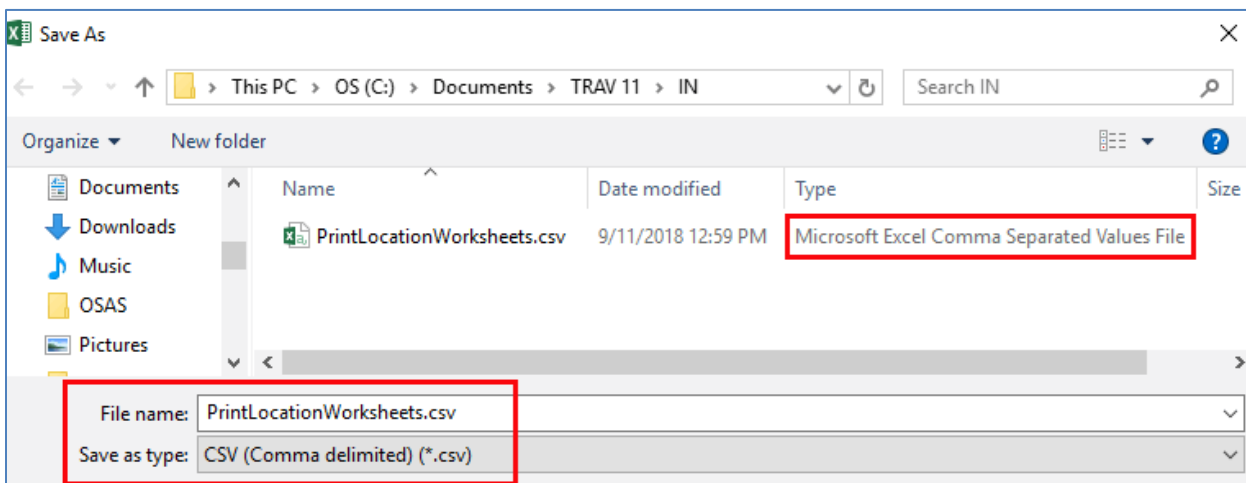
Additional information that may be found in a source file includes batch codes and tag numbers.

Review your source file data. This is a sample source file in Excel.

	A	B	C	D	E	F	G	H	I	J
1	Batch Code	Location ID	Bin No	Item ID	Unit	Qty1	Serial No	Lot No	Verify1	
2	D	CA0001	I8	700200	ea	150			-1	
3	D	CA0001	I9	700200	ea	50			-1	
4	D	CA0001		920003	ea	1	ALM9415401		-1	
5	D	CA0001				1	ALM9415402		-1	
6	D	CA0001				1	ALM9415403		-1	
7	D	CA0001				1	ALM9415404		-1	
8	D	CA0001				1	ALM9415405		-1	
9	D	CA0001				0	ALM9415406		-1	
10	D	CA0001				1	ALM9415407		-1	
11	D	CA0001				1	ALM9415408		-1	
12	D	CA0001				1	ALM9415409		-1	
13										

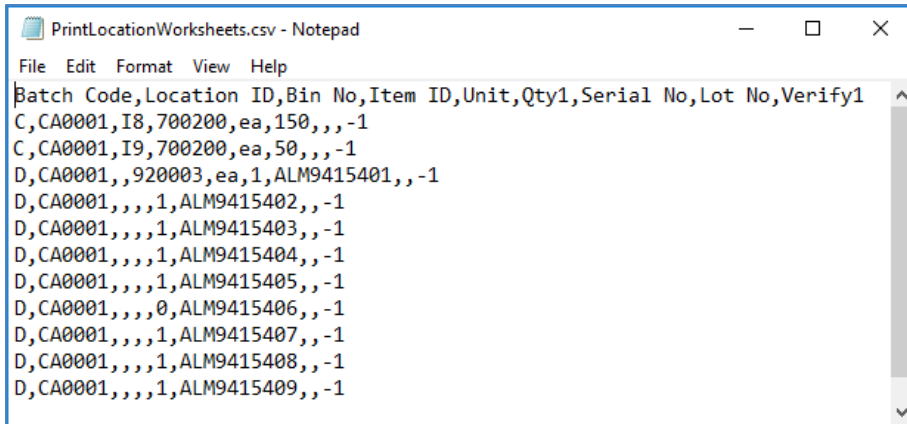
Notice the column headers. Also notice there are no commas within cells. Each column represents a field, and each row represents an individual record.

To create a plain text file we can import into TRAVERSE, save the Excel file as a comma-separated file (.csv). Select the file type from the **Save as type** drop-down list.



**NOTE:** If there are commas within any cells, Excel should put quotation marks around the field values in the .CSV file to indicate that the comma is within a field. Otherwise the single field with a comma will be considered two fields.

To view the source file as it will be imported, open the .csv file with Notepad. The column headers will be the first row of the text file.



As a review of the fields available for import on the TRAVERSE side, review the detailed list of available properties (i.e. fields) for the physical inventory counts import schema in the [online help](#).

Property	Data Type	Think of Type as
BatchId	nvarchar	Text
ItemId	nvarchar	Text
LocId	nvarchar	Text
LotNumber	nvarchar	Text
SerialNumber	nvarchar	Text
ExtLocAId (BinNum)	nvarchar	Text
ExtLocBId	nvarchar	Text
CountedUOM	nvarchar	Text
CountedUOMConvFactor	pDec	Number
QtyCounted	pDec	Number
TagNum	int	Number
VerifyYn	bit	Number

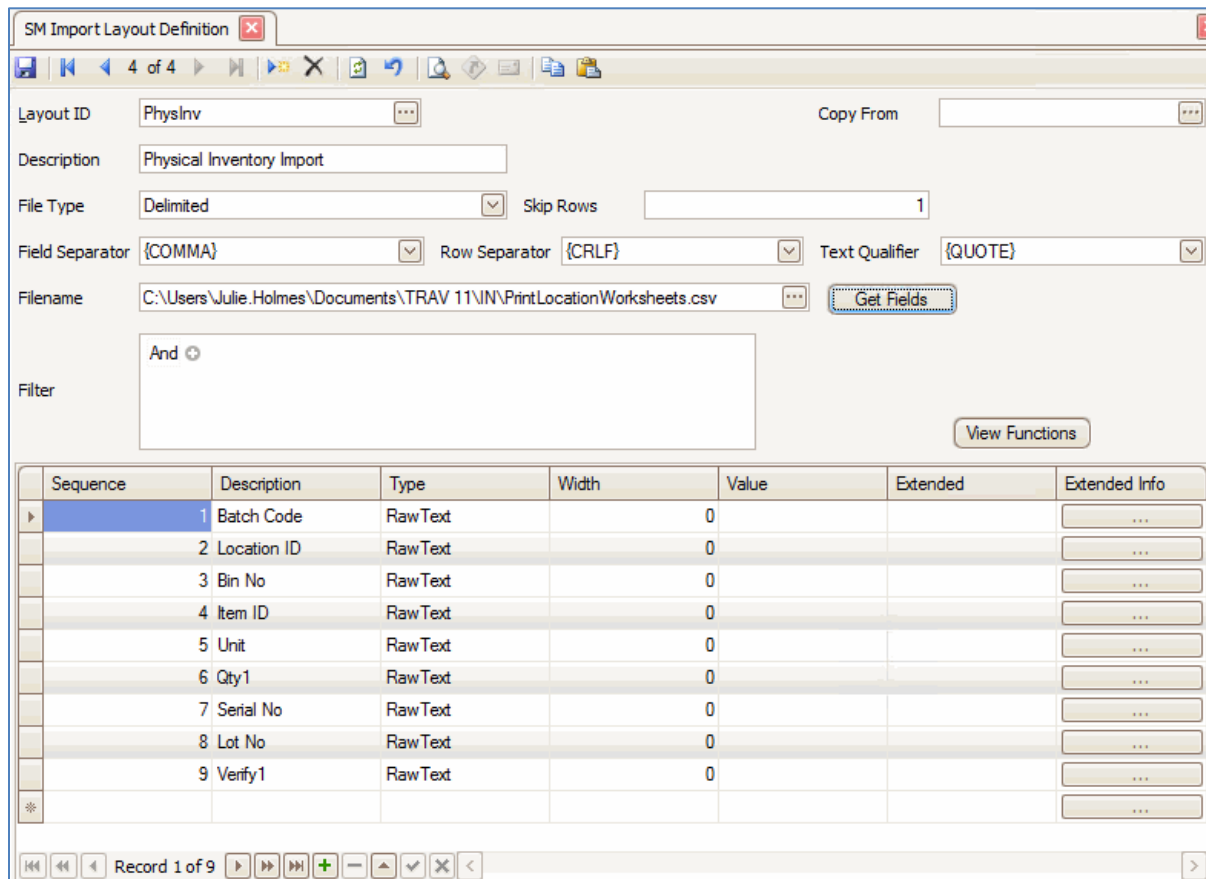
Compare your source file to the list of available properties. This allows you to review the source information and what property it relates to. This also lets you know what fields you may have to convert to a different data type before they will be imported.

Next you will create a new import layout definition. If necessary, you can reference page [5](#) for additional information about the import layout definition.

Open the Import Layout Definition screen from the SM Company Setup menu.

1. Create a new layout ID using the **New Record** button on the toolbar and enter a **Layout ID** into the field.

2. Enter a **Description** for the layout.
3. Select a **File Type** from the drop-down list. The most common type is 'Delimited'.
4. In the **Skip Rows** field, enter the number of rows the system should skip before importing the data. If you have a title row for the columns, enter '1' to skip the first row.
5. In the **Field Separator** drop-down list, select the field separator used in the source file to separate the fields. The most common separator is a comma.
6. Select the row separator used in the source file from the **Row Separator** drop-down list. The most common separator is the 'CRLF' (carriage return line feed).



7. Select a **Text Qualifier** from the drop-down list. The most common text qualifier is quotes.
8. In the **Filename** field, enter the path and filename where the source file is located, or use the **Browse** button to navigate to the source file. Remember, the filename is not required at this point, but it allows you to utilize the Get Fields function to read the source file fields into the detail grid.

9. If you have the path and filename selected, you can use the **Get Fields** button to have the system read the column names from the source file and fill in the detail grid. Notice all fields have a **Type** of 'RawText'. If you do not select a path and filename, enter the column names from the source file into the detail grid with a data Type of 'RawText'. **Note:** Use RawText because all data is imported as text data.
10. The **Width** column will be set to '0' unless it is a fixed-length source file. Then the length of the fields will appear. Adjust the width value of the fields as needed.
11. To import a default value for fields that have no value in the source file, enter the default value in the **Value** column. **Note:** The **Value** column determines the content of any non-RawText column, as well as holding functions that convert a value from one data type to another, remove leading or trailing spaces from the imported value, or pull only a portion of the imported value, among other things.
12. When you use a function to translate (convert) a value, you must set up a new record for the translation function. In the record for translation, enter a different name in the **Description** with the data type the final field should have. This is where the data type comes in. Review the table listing data types on page [11](#).

In this example, the 'QtyCounted' and the 'VerifyYn' properties in TRAVERSE have data types of 'Number'. When we import those values, we need to convert them from RAWTEXT to NUMBER. To do this, we create a new field for each property and use the CONVERT function.

6	Qty1	RawText	0		
7	Serial No	RawText	0		
8	Lot No	RawText	0		
9	Verify1	RawText	0		
10	Qty	Number	0	=CONVERT([Qty1])	
11	Verify	Number	0	=CONVERT([Verify1])	

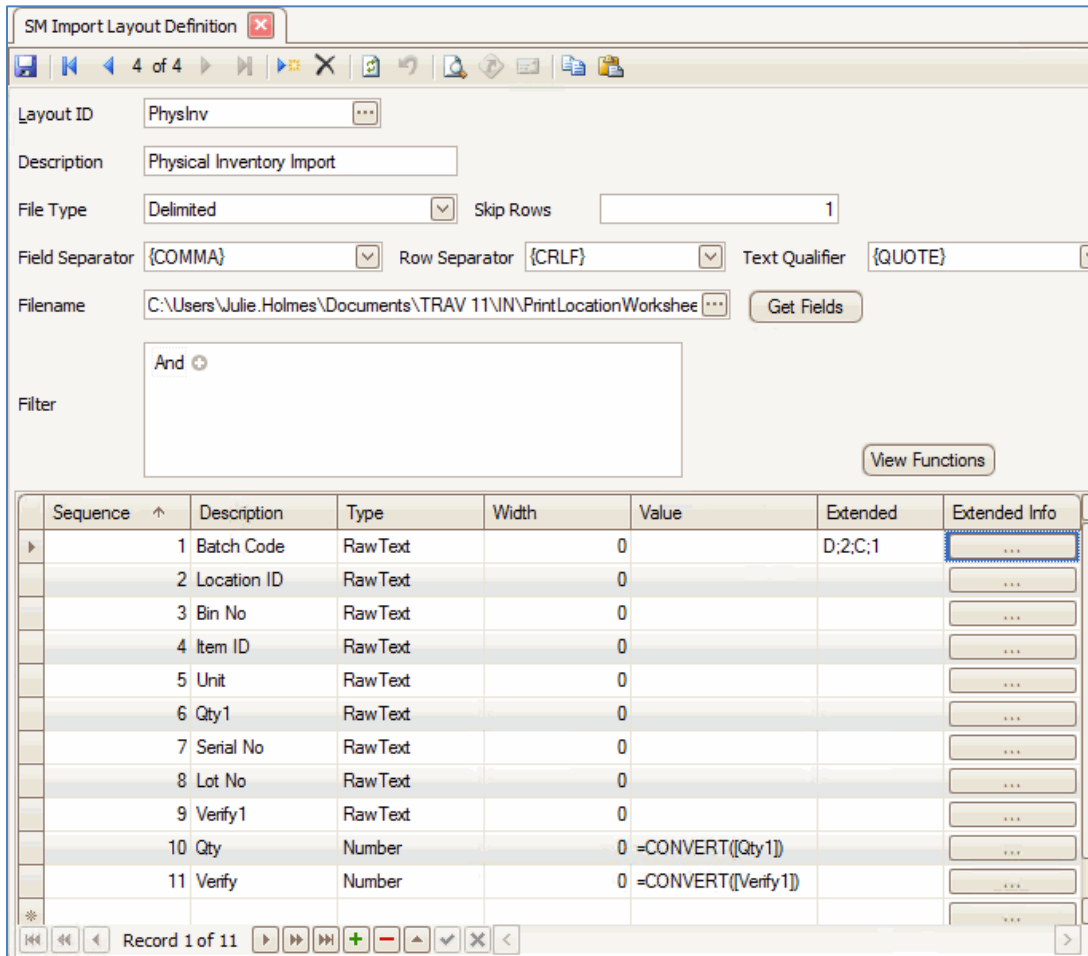
13. If field values from a source have counterparts in the TRAVERSE system, but the values do not match, use the **Extended** field to enter 'equivalent' values. Use the **Extended Info** button to open the AddExtentionForm window. Here you can enter the value in the source file in the **Values From** column, and the equivalent system value in the **Values To** column. Click the **OK** button when finished.

Sequence	Description	Type	Width	Value	Extended	Extended
1	Batch Code	RawText	0		D:2;C:1	
2	Location ID	RawText	0			
3	Bin No	RawText				
4	Item ID	RawText	0			

Batch code equivalent to D is 2, to C is 1

14. If you want to filter records from the source file during the import, such as excluding certain bins or items, or including only certain lots or locations, use the **Filter** field to create a data filter as you would for interactive views.

15. Use the **Save** button on the toolbar to save the layout definition. For this example, this is the import layout definition for our import.



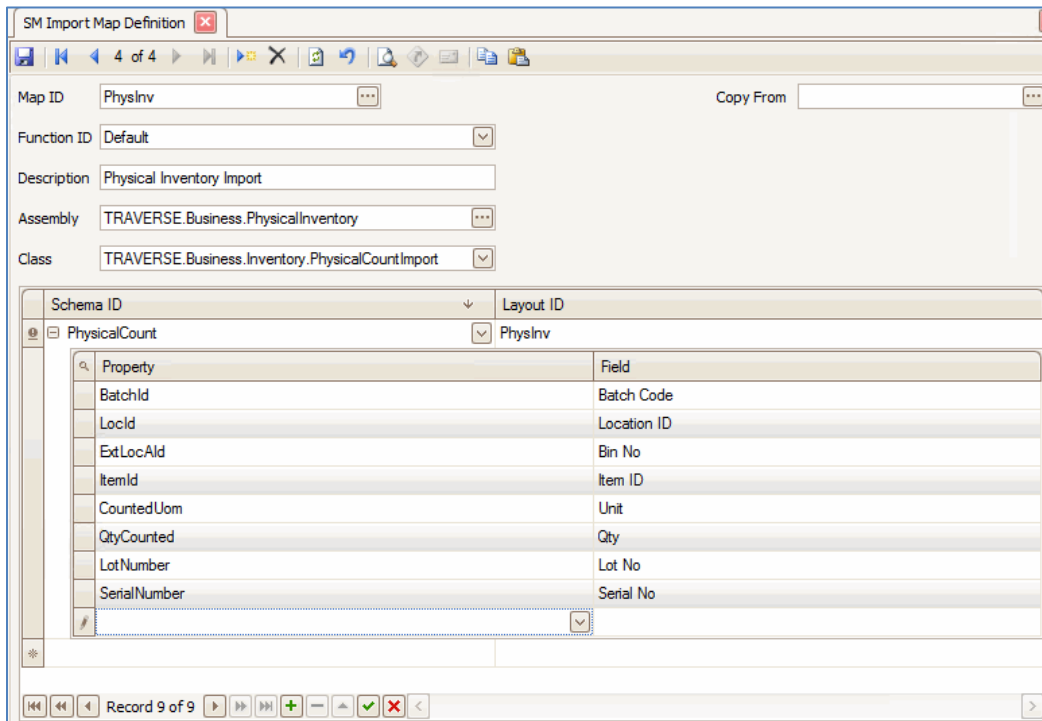
Next you will create a new import map definition. If necessary, you can reference page [7](#) for additional information about the import map definition.

For this example, we will use the physical inventory count assembly provided with the software.

Open the Import Map Definition screen from the SM Company Setup menu.

1. Create a new import map definition using the **New Record** button on the toolbar and enter a **Map ID** into the field.
2. Select a **Function ID** for the map definition. Select the 'Default' option.
3. Enter a **Description** for the import map definition.
4. Use the **Browse** button on the **Assembly** field to find the assembly to use for the import. The assemblies are located in the TRAVERSE directory. Reference the table on page [8](#) for details.

5. Once you select an assembly, the available class(es) will appear in the **Class** drop-down list. Select the class to use for the import.
6. Select the applicable **Schema ID** from the drop-down list.
7. In the **Layout ID** drop-down list, select the layout definition you just created for the physical inventory count import.
8. Click on the plus sign beside the **Schema ID** to expand the properties grid. This is where you will map the TRAVERSE fields to the source file fields. **Reminder:** You do not have to use all the fields listed in the Property drop-down list. There may also be fields in the layout that you do not use for the import.
9. Select a schema **Property** from the drop-down list. Select the corresponding **Field**. Repeat the process until you have selected all the fields you want to import from the source file.



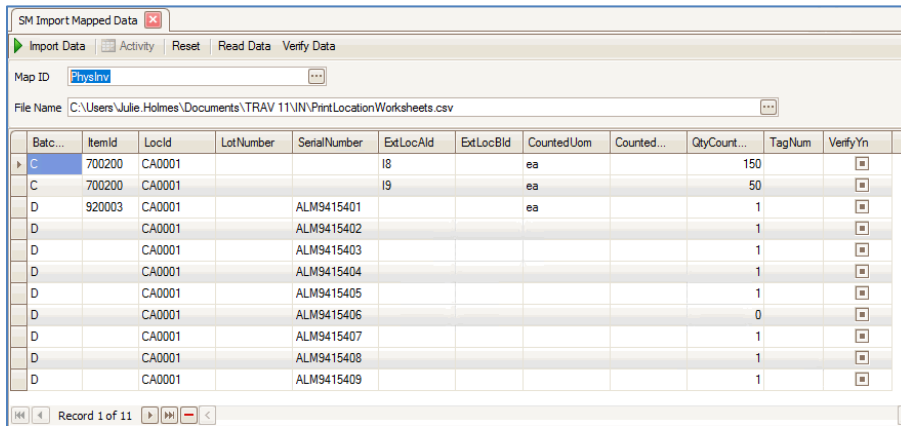
Note that the 'Qty' field is the converted field, not the original 'Qty1' field from the source file. That way the quantity value imported into the 'QtyCounted' field matches the type of the 'QtyCounted' field.

10. Once you have mapped all the fields you want to import, **Save** the import map definition.

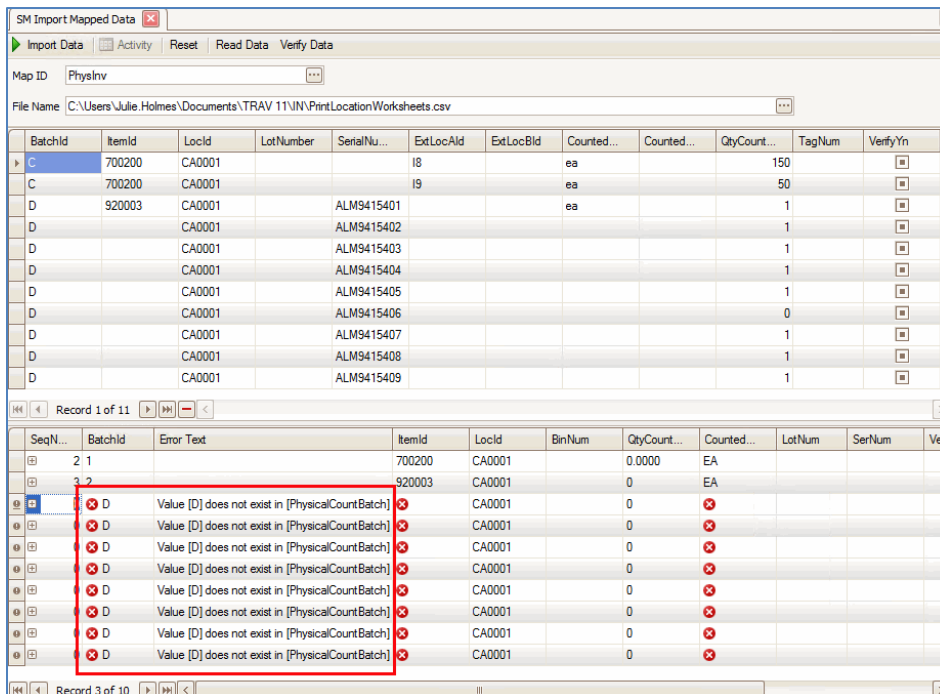
Once you have the map definition created, you can import the data. Open the Import Mapped Data screen from the SM Company Setup menu.

Select the map definition you want to import from the **Map ID** drop-down list.

1. Verify the **File Name**. If necessary, browse to the source file.
2. Use the **Read Data** button on the toolbar to view the data to be imported.



3. The column headings match the TRAVERSE fields into which you are importing data. If the values from the source file don't appear in the correct location, review the map definition and the layout definition for accuracy.
4. Use the **Verify Data** button to check the data for errors. If the data has errors, those records will be flagged.





5. Each error is marked. The **Error Text** column lists the primary error. Hover the mouse over other flags to see additional errors.

Item ID	LocID	Error
700200	CA0001	
920003	CA0001	
	CA0001	does not exist in [PhysicalCountBatch] ❌
	CA0001	does not exist in [PhysicalCountBatch] ❌
	CA0001	does not exist in [PhysicalCountBatch] ❌ Item ID is required.
	CA0001	does not exist in [PhysicalCountBatch] ❌

6. You can address errors in multiple ways:
  - a. If there are few errors, you can correct the errors directly in the verify grid. Once the error is corrected, the flag will disappear.

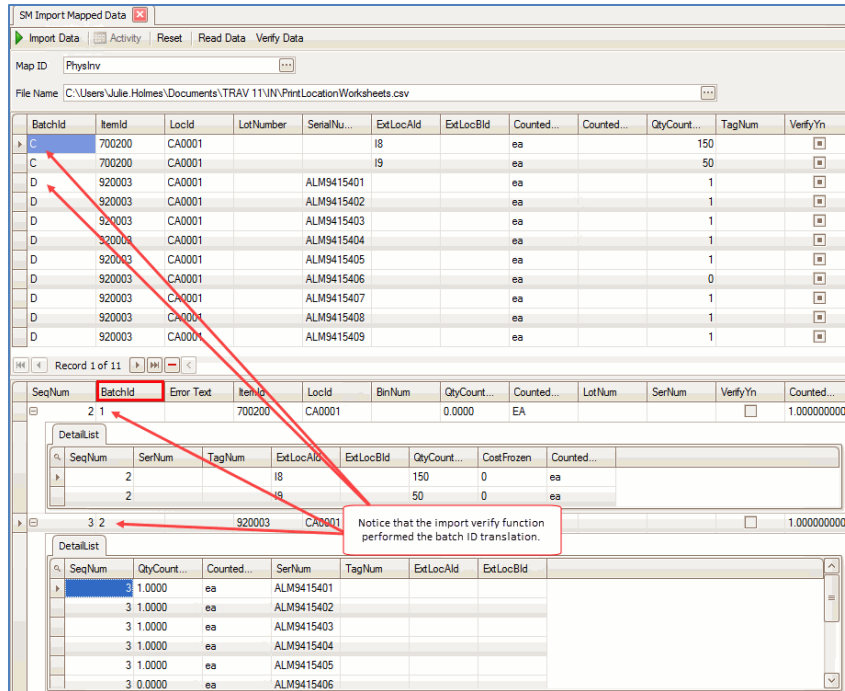
physicalCountBatch].	❌ D	920003	CA0001
physicalCountBatch].	❌ D	920003	CA0001
physicalCountBatch].	❌ D	920003	CA0001
physicalCountBatch].	❌ D	❌	CA0001
physicalCountBatch].	❌ D	❌	CA0001

If you correct errors directly in the grid, perform the Verify Data process to check the values again.

- b. If there are multiple errors, especially if they are all in the same column, you can go back to the source file and address the errors. In our sample, the Item ID and the unit of measure are missing from a number of records. Open the source file and make sure the item ID and Unit are filled in for all records. Save the file. Close the source file (if the source file is open when processing the import, the import will fail and return an error).

	A	B	C	D	E	F	G	H	I	J
1	Batch Cod	Location	Bin No	Item ID	Unit	Qty1	Serial No	Lot No	Verify1	
2	C	CA0001	18	700200	ea	150			-1	
3	C	CA0001	19	700200	ea	50			-1	
4	D	CA0001		920003	ea		1 ALM9415401		-1	
5	D	CA0001		920003	ea		1 ALM9415402		-1	
6	D	CA0001		920003	ea		1 ALM9415403		-1	
7	D	CA0001		920003	ea		1 ALM9415404		-1	
8	D	CA0001		920003	ea		1 ALM9415405		-1	
9	D	CA0001		920003	ea		0 ALM9415406		-1	
10	D	CA0001		920003	ea		1 ALM9415407		-1	
11	D	CA0001		920003	ea		1 ALM9415408		-1	
12	D	CA0001		920003	ea		1 ALM9415409		-1	
13										
14										

Once you have made corrections in the source file, use the **Reset** button to clear the screen in the Import Mapped Data function. Choose the Map ID and File Name as before, then **Read** and **Verify** the source file.



Notice now how the verify grid is organized. Details of the records with the same part numbers are shown in the Detail List available when you click the plus sign in the SeqNum column.

- c. If there are errors in a particular field, and if you cannot correct the errors, you can choose not to import that field. To remove a field from the import, go to the import map definition and remove that field from the property-field grid.
7. Once you have addressed all the errors, use the **Import Data** button on the toolbar to import the data. You will see a notification when the import is complete. Review the imported counts per the Physical Inventory process.

**WARNING:** For this import, each time the **Import Data** button is used, the data is imported into the system. The counted amounts will accumulate. If available, the Activity Log records errors only, and will not show successful imports. The Activity Log is available for select import processes.

## Import Workflow – multi-level import

For this portion of the tutorial, we will import a bill of material (BOM) to demonstrate one method for importing multi-level data. For our example, because we are conducting an import of a bill of material, make sure the parent assembly and all component parts are set up in Inventory. Operations used on the BOM also need to be set up in MFG-Routing before you import the BOM. Once these tasks are complete you can proceed with the import.

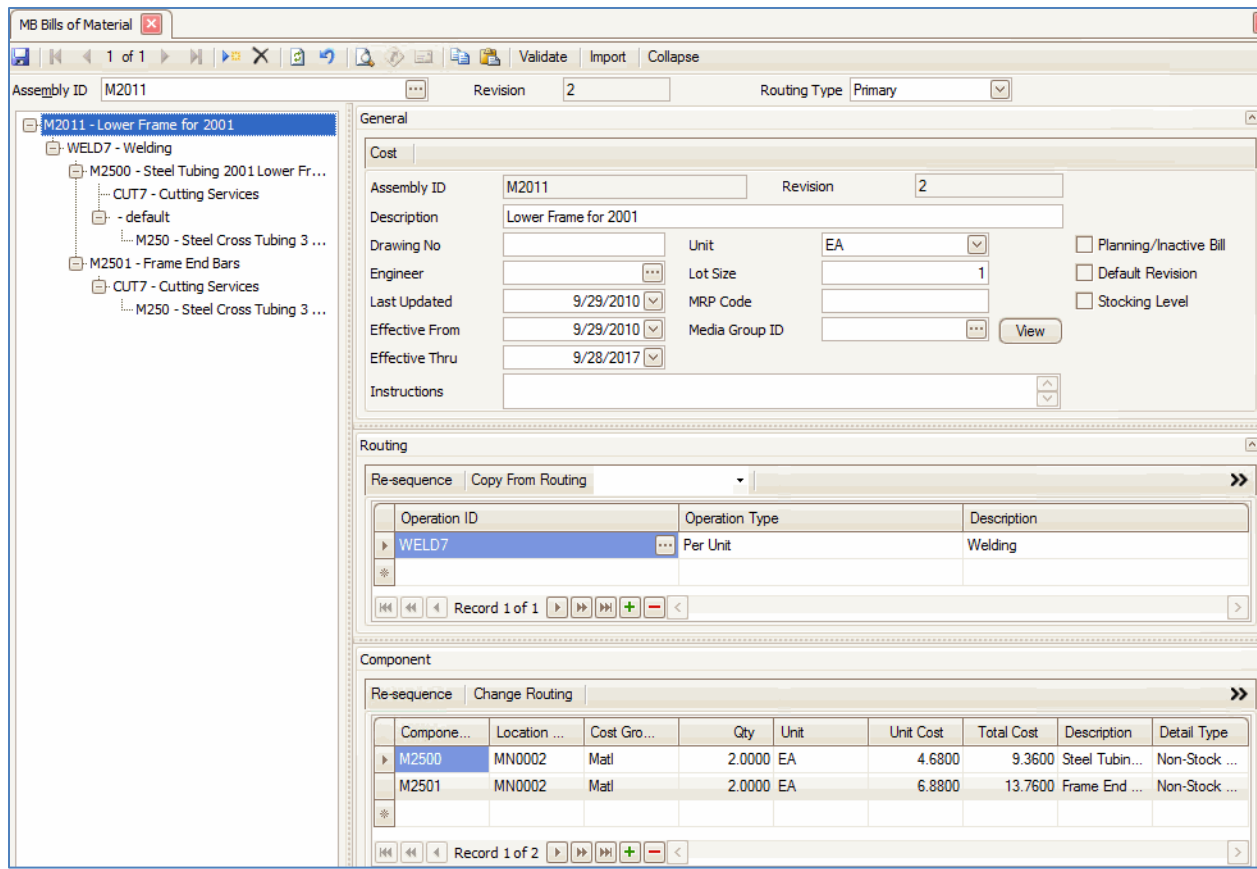
For bills of material, the important pieces of information include:

- Assembly number and revision
- Effective from-thru dates
- Lot size and unit of measure
- Last updated date
- Routing number(s)/ID(s)
- Routing steps
- Operation types
- Operation IDs
- Operation sequence (for components, etc)
- Component ID(s)
- Component inventory locations
- Component units of measure
- Usage type (per assembly, fixed quantity, or as needed)
- Component quantity used per assembly
- Detail (component) type (subassembly, stocked subassembly, material, or byproduct)

Additional information that may be found in a source file includes drawing numbers, specifics regarding the various setup and run times, and assorted notes.

### **BOM Levels**

A bill of material is arranged in a hierarchy, with the finished assembly at the top, and the various routings and components below it. You can see this when you look at the MFG-BOM maintenance screen.



Keep this in mind when creating the source file for the import. For our example, we will import a BOM for a painted cabinet. If the top-level assembly is M091418-1, our BOM could look something like this:

- M091418-1
  - PAINT7 (operation)
    - Components:
      - 700130
      - 820001
      - 81200
      - 700998
  - ASSEMBLE7
    - 700400
    - 700119
    - 700115
  - GLUE47
    - 7001111
  - CUT7
    - 7001112

### CompoundData schema

The CompoundData schema for the MFG BOM import process holds the data for all levels of the BOM in one schema. The properties are arranged as though you are starting at the General section of the BOM maintenance screen and working your way down to the Routings section and the Components section.

**NOTE:** The codes for fields with values that are selected via a drop-down box on the maintenance screen can be found in the detailed list of the available properties (i.e. fields) for each import schema in the [online help](#).

Review your source file data. This is the sample source file in Excel. Each column represents a field, and each row represents an individual record.

	A	B	C	D	E	F	G	H	I	J
1	BOM_Id	AssemblyNo	RevNo	Descr	EffDateFrm1	EffDateTo1	DrwgNum	LotSize1	Unit	LastUpdate
2	180914003	M091418-1	1	Assembled, painted cabinet	9/14/2018	9/14/2020		1	EA	9/17/2018
3	180914003	M091418-1	1	Assembled, painted cabinet	9/14/2018	9/14/2020		1	EA	9/17/2018
4	180914003	M091418-1	1	Assembled, painted cabinet	9/14/2018	9/14/2020		1	EA	9/17/2018
5	180914003	M091418-1	1	Assembled, painted cabinet	9/14/2018	9/14/2020		1	EA	9/17/2018
6	180914003	M091418-1	1	Assembled, painted cabinet	9/14/2018	9/14/2020		1	EA	9/17/2018
7	180914003	M091418-1	1	Assembled, painted cabinet	9/14/2018	9/14/2020		1	EA	9/17/2018
8	180914003	M091418-1	1	Assembled, painted cabinet	9/14/2018	9/14/2020		1	EA	9/17/2018
9	180914003	M091418-1	1	Assembled, painted cabinet	9/14/2018	9/14/2020		1	EA	9/17/2018
10	180914003	M091418-1	1	Assembled, painted cabinet	9/14/2018	9/14/2020		1	EA	9/17/2018
11										

	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
	Instructions	Rtg	RtgType	Step	RtgDescr	OprType	OperID	Seq	CompID	CompRev	LocID	UOM	UseType	Qty1	Detailtype	CompDescr
1	test bom import	1891711	1	1		0	CUT7	1	7001112		MN0002	SET	0	1	4	
2	test bom import	1891712	1	2		0	GLUE47	1	7001111		MN0002	OZ	0	2	4	
3	test bom import	1891713	1	3		0	ASSEMBLE7	1	700400		MN0002	EA	0	10	4	
4	test bom import	1891713	1	3		0	ASSEMBLE7	2	700115		MN0002	EA	0	3	4	
5	test bom import	1891713	1	3		0	ASSEMBLE7	3	700119		MN0002	SET	0	1	4	
6	test bom import	1891714	1	4		0	PAINT7	1	700130		MN0002	OZ	0	3	4	
7	test bom import	1891714	1	4		0	PAINT7	2	820001		MN0002	EA	0	3	4	
8	test bom import	1891714	1	4		0	PAINT7	3	812001		MN0002	QT	0	2	4	
9	test bom import	1891714	1	4		0	PAINT7	4	700998		MN0002	EA	0	2	4	

‘Header’ section:

- BOM\_Id = Header Id, unique to the bill of material. Not visible on the BOM maintenance screen.
- AssemblyNo = Assembly ID
- RevNo = Revision
- Descr = Description of assembly. Note that the assembly has been set up as an inventory item, so the description is not necessary; it is already available through IN Item.
- EffDateFrm1, EffDateTo1 = Effective From and Effective To. The ‘1’ at the end of the column name reminds us that the column value will need to be converted from text (the source file values are all text values) into a date value so it can be imported into the property, which is of data type ‘datetime’.
- DrwgNum = Drawing No

- 
- LotSize1 = Lot Size. The '1' at the end of the column name indicates the column value will need to be converted from text into a number so it can be imported into a property with the data type 'integer'.
  - Unit = lot unit of measure
  - LastUpdate = Last Updated. The value will need to be converted from text into a date so it can be imported into a property with the data type 'datetime'.
  - Instructions = Instructions

'Routing' section:

Note that if you view the Routing section on the BOM maintenance screen in detail, each field in the detail view of the section is available to import. Also note, however, that each operation, if it exists, will have that information set up in the MFG-Routing Operations maintenance screen.

- Rtg = Routing ID, unique number for each routing (set of operations) that is a part of the assembly. Not visible on the BOM maintenance screen.
- RtgType = The type of routing, primary (1) or secondary (2).
- RtgDescr = Routing description
- OprType = Operation type, one of the following: Per Unit (0), Subcontract (1), Batch (2), Run Rate (3).
- OperID = Operation ID

'Component' section:

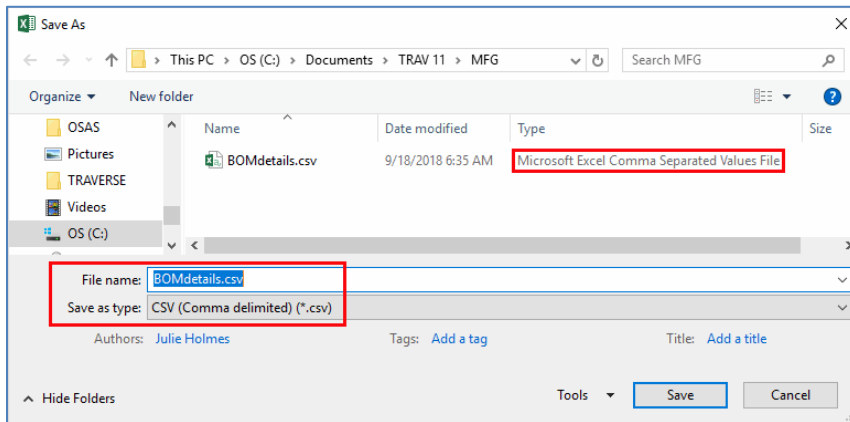
Note that if you view the Component section on the BOM maintenance screen in detail, each field in the detail view of the section is available to import. Also note, however, that each component, if it exists, will have that information set up in the IN Items maintenance screen.

- Seq = Sequence number. Determines the order in which the components are listed.
- CompID = Component ID
- CompRev = Component Revision
- LocID = Location ID
- UOM = Unit of Measure
- UseType = Usage Type, one of the following: Per Assembly (0), Fixed Quantity (1), As Needed (2).
- Qty1 = Quantity. The '1' at the end of the column name reminds us that the column value will need to be converted from text into a number so it can be imported into a property with the data type 'decimal'.
- Detailtype = Detail Type, one of the following: Subassembly (2), Stocked Subassembly (3), Material (4), Byproduct (5).
- CompDescr = Description. Each component will have that information set up in the IN Items maintenance screen.

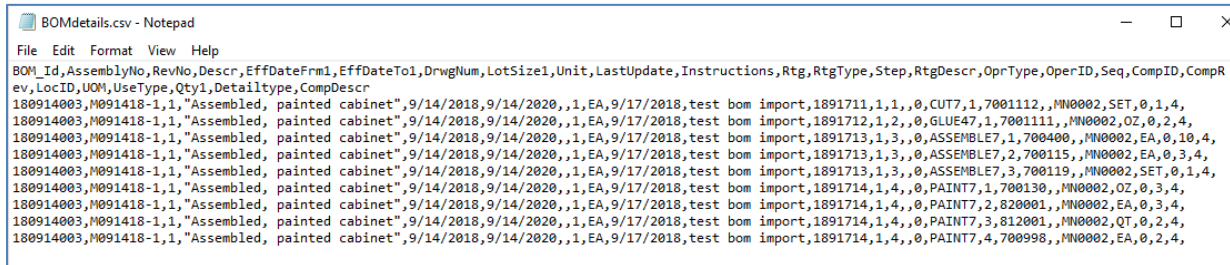
**NOTE:** Notice the commas within the cells of column D. If there are commas within any cells, Excel should put quotation marks around the field values in the .csv file to indicate that the comma is within a field. Otherwise the single field with a comma will be considered two fields.

### Create Source file

To create a plain text file we can import into TRAVERSE, save the Excel file as a comma-separated file (.csv). Select the file type from the **Save as type** drop-down list.



To view the source file as it will be imported, open the .csv file with Notepad. The column headers will be the first row of the text file.



Notice that the Descr field, which has the comma inside the field, has been saved with quotation marks around the field value, ensuring the value will be imported as a single field.

You can review the detailed list of available properties (i.e. fields) available for import on the TRAVERSE side for the MFG BOM import CompoundData schema in the [online help](#).

Compare your source file to the list of available properties. This allows you to review the source information and the property it relates to. This also lets you know what fields you may have to convert to a different data type before they will be imported.

---

## Create Import Layout Definition

Next you will create a new import layout definition. If necessary, you can reference [page 5](#) for additional information about the import layout definition.

Open the Import Layout Definition screen from the SM Company Setup menu

1. Create a new layout ID using the **New Record** button on the toolbar and enter a **Layout ID** into the field.
2. Enter a **Description** for the layout.
3. Select a **File Type** from the drop-down list. The most common type is 'Delimited'.
4. In the **Skip Rows** field, enter the number of rows the system should skip before importing the data. If you have a title row for the columns, enter '1' to skip the first row.
5. In the **Field Separator** drop-down list, select the field separator used in the source file to separate the fields. A comma is the most common separator.
6. Select the row separator used in the source file from the **Row Separator** drop-down list. The most common separator is the 'CRLF' (carriage return line feed).
7. Select a **Text Qualifier** from the drop-down list. Text qualifiers are used when a field separator occurs within a field, and the text qualifier—most commonly quotes—is placed around the field value to ensure the value is considered one field rather than two.
16. In the **Filename** field, enter the path and filename where the source file is located, or use the **Browse** button to navigate to the source file. Remember, the filename is not required at this point, but it allows you to utilize the Get Fields function to read the source file fields into the detail grid.
8. If you have the path and filename selected, you can use the **Get Fields** button to have the system read the column names from the source file and fill in the detail grid. Notice all fields have a **Type** of 'RawText'. If you do not select a path and filename, enter the column names from the source file into the detail grid with a data Type of 'RawText'. **Note:** Use RawText because all data is imported as text data.
9. The **Width** column will be set to '0' unless you are importing a fixed-length source file. You can adjust the width value of the fields as needed.
10. To import a default value for fields that have no value in the source file, enter the default value in the **Value** column. **Note:** The **Value** column determines the content of any non-RAWTEXT



column, as well as holding functions that convert a value from one data type to another, remove leading or trailing spaces from the imported value, or pull only a portion of the imported value, among other things.

11. When you use a function to translate (convert) a value, you must set up a new record for the translation function. In the record for translation, enter a different name in the **Description** with the data type the final field should have. This is where the data type comes in. Review the table listing data types on page [11](#).

In this example, the 'LotSize' and the 'Qty' properties have data types of 'Number'. When we import those values, we need to convert them from RAWTEXT to NUMBER. To do this, we create a new field for each property and use the CONVERT function.

12. If field values from a source have counterparts in the TRVERSE system, but the values do not match, use the **Extended** field to enter "equivalent" values. Use the **Extended Info** button to open the AddExtentionForm window, and enter the value in the source file into the **Values From** column, and the equivalent TRVERSE value into the **Values To** column. Click the **OK** button when finished.
13. If you want to filter records from the source file during the import, such as excluding certain bins or items, or including only certain lots or locations, use the **Filter** field to create a data filter as you would for interactive views.
17. Use the **Save** button on the toolbar to save the layout definition. For this example, the import layout definition for our import is on the next page.

SM Import Layout Definition

Layout ID: BOMImp Copy From:

Description: Bill of Material Import

File Type: Delimited Skip Rows: 1

Field Separator: {COMMA} Row Separator: {CRLF} Text Qualifier: {QUOTE}

Filename: C:\Documents\TRAV 11\MFG\BOMdetails.csv Get Fields

Filter: And

View Functions

Sequence	Description	Type	Width	Value	Extended	Extended Info
1	BOM_Id	RawText	0			...
2	AssemblyNo	RawText	0			...
3	RevNo	RawText	0			...
4	Descr	RawText	0			...
5	EffDateFrm1	RawText	0			...
6	EffDateTo1	RawText	0			...
7	DrwgNum	RawText	0			...
8	LotSize1	RawText	0			...
9	Unit	RawText	0			...
10	LastUpdate	RawText	0			...
11	Instructions	RawText	0			...
12	Rtg	RawText	0			...
13	RtgType	RawText	0			...
14	Step	RawText	0			...
15	RtgDescr	RawText	0			...
16	OprType	RawText	0			...
17	OperID	RawText	0			...
18	Seq	RawText	0			...
19	CompID	RawText	0			...
20	CompRev	RawText	0			...
21	LocID	RawText	0			...
22	UOM	RawText	0			...
23	UseType	RawText	0			...
24	Qty1	RawText	0			...
25	Detailtype	RawText	0			...
26	CompDescr	RawText	0			...
27	LotSize	Number	0	=CONVERT([LotSize1])		...
28	Qty	Number	0	=CONVERT([Qty1])		...
29	EffDateTo	DateTime	0	=CONVERT([EffDateTo1])		...
30	EffDateFrm	DateTime	0	=CONVERT([EffDateFrm1])		...
31	LastUpdated	DateTime	0	=CONVERT([LastUpdate])		...
32	RtgID	Number	0	=CONVERT([Rtg])		...

Record 32 of 32

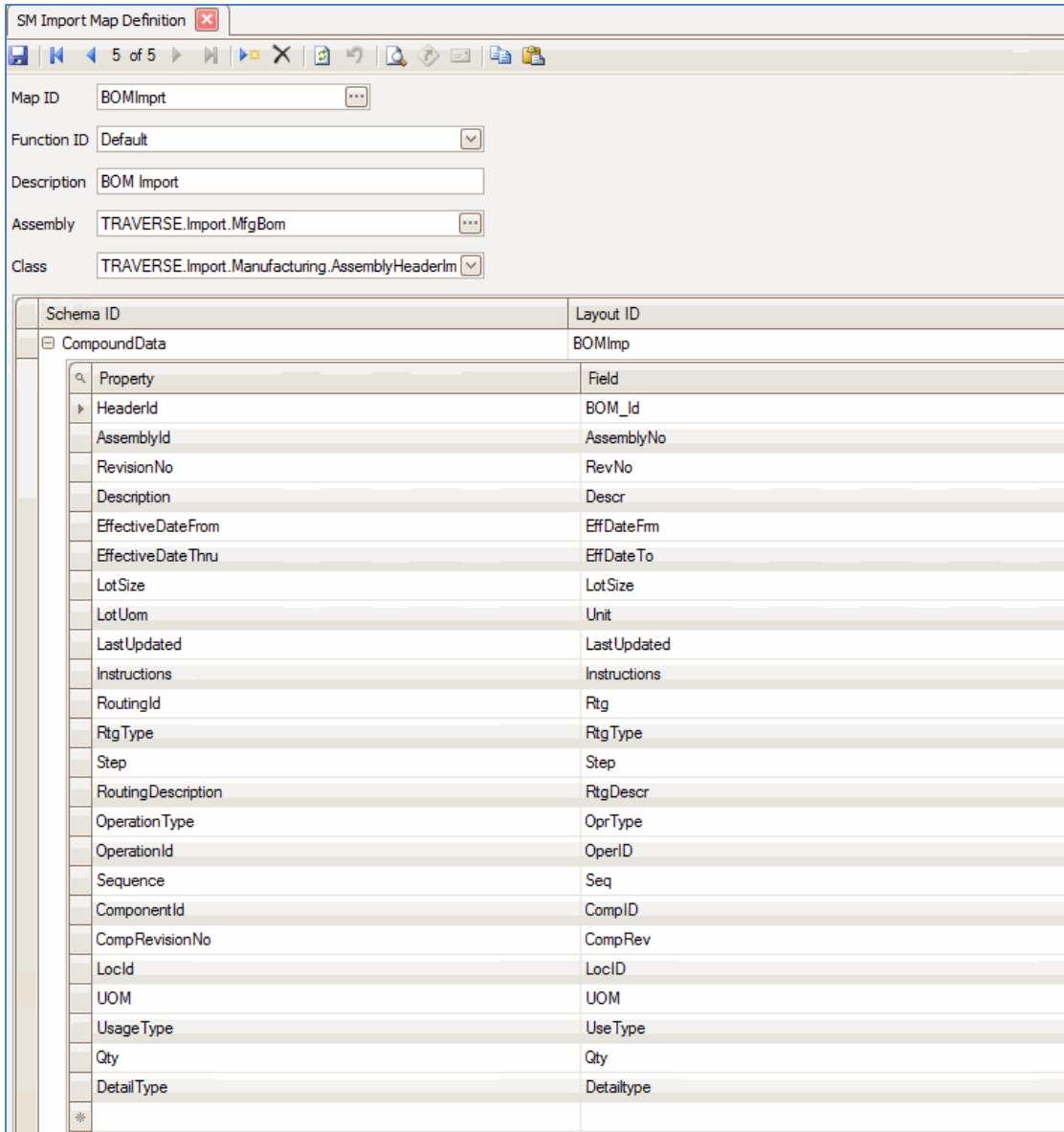
## Create Import Map Definition

Next you will create a new import map definition. If necessary, you can reference page [7](#) for additional information about the import map definition.

For this example, we will use the MFG BOM assembly provided with the software.

Open the Import Map Definition screen from the SM Company Setup menu.

1. Create a new import map definition using the **New Record** button on the toolbar and enter a **Map ID** into the field.
2. Select a **Function ID** for the map definition. Select the 'Default' option.
3. Enter a **Description** for the map definition.
4. Use the **Browse** button on the **Assembly** field to find the assembly to use for the import. The assemblies are located in the TRVERSE directory. Reference the table on page [8](#) for details.
5. Once you select an assembly, the available class(es) will appear in the **Class** drop-down list. Select the class to use for the import.
6. Select the CompoundData **Schema ID** from the drop-down list.
7. In the **Layout ID** drop-down list, select the layout definition you just created for the MFG BOM import.
8. Click on the plus sign beside the **Schema ID** to expand the properties grid. This is where you will map the TRVERSE fields to the source file fields. Remember, you do not have to use all the fields listed in the Property drop-down list. There may also be fields in the layout that you do not use for the import.
9. Select a schema **Property** from the drop-down list. Select the corresponding **Field**. Repeat the process until you have selected all the fields you want to import from the source file.



Note that the 'EffDateFrm' and 'EffDateTo' fields are the converted fields, not the original 'EffDateFrm1' and 'EffDateTo1' fields from the source file. That way the date values imported match the data types of the 'EffectiveDateFrom' and 'EffectiveDateThru' fields. Note the other fields that have been converted as well: Lot Size, Qty, Last Updated, RoutingID.

10. Once you have mapped all the fields you want to import, **Save** the import map definition.

### Import Mapped Data

Once you have the map definition created, you can import the data. Select the map definition you want to import from the **Map ID** drop-down list.

1. Verify the **File Name**. If necessary, browse to the source file.
2. Use the **Read Data** button on the toolbar to view the data to be imported.

Head...	Assembl...	Revis...	Description	Effective...	Effective...	Drawin...	LotSize	LotUom	LastUpda...	Instructions	RoutingId	RtgType	Op...
180914003	M091418-1	1	Assembled, ...	9/14/2018	9/14/2020			1 EA	9/17/2018	test bom imp...	1891711	1	
180914003	M091418-1	1	Assembled, ...	9/14/2018	9/14/2020			1 EA	9/17/2018	test bom imp...	1891712	1	
180914003	M091418-1	1	Assembled, ...	9/14/2018	9/14/2020			1 EA	9/17/2018	test bom imp...	1891713	1	
180914003	M091418-1	1	Assembled, ...	9/14/2018	9/14/2020			1 EA	9/17/2018	test bom imp...	1891713	1	
180914003	M091418-1	1	Assembled, ...	9/14/2018	9/14/2020			1 EA	9/17/2018	test bom imp...	1891713	1	
180914003	M091418-1	1	Assembled, ...	9/14/2018	9/14/2020			1 EA	9/17/2018	test bom imp...	1891714	1	
180914003	M091418-1	1	Assembled, ...	9/14/2018	9/14/2020			1 EA	9/17/2018	test bom imp...	1891714	1	
180914003	M091418-1	1	Assembled, ...	9/14/2018	9/14/2020			1 EA	9/17/2018	test bom imp...	1891714	1	
180914003	M091418-1	1	Assembled, ...	9/14/2018	9/14/2020			1 EA	9/17/2018	test bom imp...	1891714	1	

OperationT...	OperationId	Sequence	Compone...	LocId	UOM	UsageType	Qty	DetailType	HeaderYn	RoutingYn	Compone...	
1	0 CUT7	1	7001112	MN0002	SET		0	1	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2	0 GLUE47	1	7001111	MN0002	OZ		0	2	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	0 ASSEMBLE7	1	700400	MN0002	EA		0	10	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	0 ASSEMBLE7	2	700115	MN0002	EA		0	3	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	0 ASSEMBLE7	3	700119	MN0002	SET		0	1	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4	0 PAINT7	1	700130	MN0002	OZ		0	3	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4	0 PAINT7	2	820001	MN0002	EA		0	3	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4	0 PAINT7	3	812001	MN0002	QT		0	2	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4	0 PAINT7	4	700998	MN0002	EA		0	2	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

3. The column headings match the TRAVERSE fields into which you are importing data. If the values from the mapped source file don't appear in the correct location, review the map definition and the layout definition for accuracy. Use the Column Chooser to remove the columns you are not importing from the display.
4. Notice the relationship between the Routing IDs, operations, and components.

s	RoutingId	RtgType	OperationT...	OperationId	Sequence	Compone...	LocId	UOM
p...	1891711	1	0 CUT7		1	7001112	MN0002	SET
p...	1891712	1	0 GLUE47		1	7001111	MN0002	OZ
p...	1891713	1	0 ASSEMBLE7		1	700400	MN0002	EA
p...	1891713	1	0 ASSEMBLE7		2	700115	MN0002	EA
p...	1891713	1	0 ASSEMBLE7		3	700119	MN0002	SET
p...	1891714	1	0 PAINT7		1	700130	MN0002	OZ
p...	1891714	1	0 PAINT7		2	820001	MN0002	EA
p...	1891714	1	0 PAINT7		3	812001	MN0002	QT
p...	1891714	1	0 PAINT7		4	700998	MN0002	EA

- Use the **Verify Data** button to check the data for errors. If the data has errors, those records will be flagged.

Map ID: BOMImp1

File Name: C:\Users\Julie.Holmes\Documents\TRAV 11\MFG\BOMdetails.csv

HeaderId	AssemblyId	RoutingId	OperationId	S...	Compone...	Description	Effective...	Effective...	RevisionNo	Drawing...	LotSize	LotUom
180914003	M091418-1	1891711	CUT7	1	7001112	Assembled, ...	9/14/2018	9/14/2020	1			1 EA
180914003	M091418-1	1891712	GLUE47	2	7001111	Assembled, ...	9/14/2018	9/14/2020	1			1 EA
180914003	M091418-1	1891713	ASSEMBLE7	3	700400	Assembled, ...	9/14/2018	9/14/2020	1			1 EA
180914003	M091418-1	1891713	ASSEMBLE7	3	700115	Assembled, ...	9/14/2018	9/14/2020	1			1 EA
180914003	M091418-1	1891713	ASSEMBLE7	3	700119	Assembled, ...	9/14/2018	9/14/2020	1			1 EA
180914003	M091418-1	1891714	PAINT7	4	700130	Assembled, ...	9/14/2018	9/14/2020	1			1 EA
180914003	M091418-1	1891714	PAINT7	4	820001	Assembled, ...	9/14/2018	9/14/2020	1			1 EA
180914003	M091418-1	1891714	PAINT7	4	812001	Assembled, ...	9/14/2018	9/14/2020	1			1 EA
180914003	M091418-1	1891714	PAINT7	4	700998	Assembled, ...	9/14/2018	9/14/2020	1			1 EA

Record 1 of 9

Id	Error Text	AssemblyId	RevisionNo	Description	Effective...	Effective...	Drawing...	LotSize	Uom	MpCode	Engineer
180914003		M091418-1	1	Assembled, ...	9/14/2018	9/14/2020			1 EA		

AssemblyRoutingList

HeaderId	Id	OperationId	S...	Rtg Type	Operation...	YieldPct	MaxQuan...	SubUnitC...	QueueTime	MachRu...	Mac
180914003	1891711	CUT7	1	1	0	100	0	0.2700	0	0.500	
180914003	1891712	GLUE47	2	1	0	100	0	0	0	0	
180914003	1891713	ASSEMBLE7	3	1	0	100	0	0	0	0	
180914003	1891714	PAINT7	4	1	0	100	0	0	0	5.000	

Notice the Assembly Routing List tab has 4 records—4 routings—listed. This indicates that the import will correctly bring in 4 routings.

Map ID: BOMImp1

File Name: C:\Users\Julie.Holmes\Documents\TRAV 11\MFG\BOMdetails.csv

HeaderId	AssemblyId	RoutingId	OperationId	S...	Compone...	Description	Effective...	Effective...	RevisionNo	Drawing...
180914003	M091418-1	1891711	CUT7	1	7001112	Assembled, ...	9/14/2018	9/14/2020	1	
180914003	M091418-1	1891712	GLUE47	2	7001111	Assembled, ...	9/14/2018	9/14/2020	1	
180914003	M091418-1	1891713	ASSEMBLE7	3	700400	Assembled, ...	9/14/2018	9/14/2020	1	
180914003	M091418-1	1891713	ASSEMBLE7	3	700115	Assembled, ...	9/14/2018	9/14/2020	1	
180914003	M091418-1	1891713	ASSEMBLE7	3	700119	Assembled, ...	9/14/2018	9/14/2020	1	
180914003	M091418-1	1891714	PAINT7	4	700130	Assembled, ...	9/14/2018	9/14/2020	1	
180914003	M091418-1	1891714	PAINT7	4	820001	Assembled, ...	9/14/2018	9/14/2020	1	
180914003	M091418-1	1891714	PAINT7	4	812001	Assembled, ...	9/14/2018	9/14/2020	1	
180914003	M091418-1	1891714	PAINT7	4	700998	Assembled, ...	9/14/2018	9/14/2020	1	

Record 1 of 9

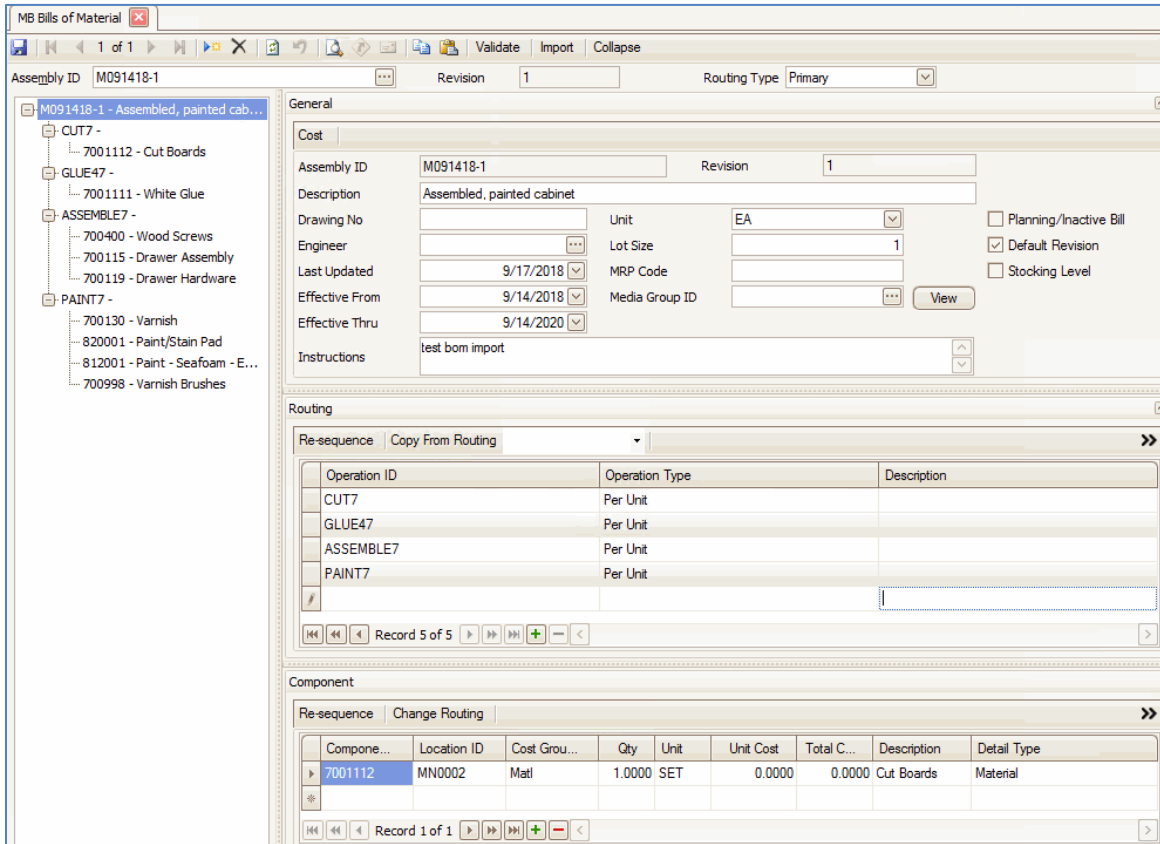
Id	Error Text	AssemblyId	RevisionNo	Description	Effective...	Effective...	LotSize	Uom	Last Upda...
180914003		M091418-1	1	Assembled, ...	9/14/2018	9/14/2020		1 EA	9/17/2018

AssemblyDetailList

HeaderId	RoutingId	Compone...	Sequence	Qty	UOM	Description	LocId	Usage Type
180914003	1891711	7001112	1	1	SET	Cut Boards	MN0002	0
180914003	1891712	7001111	1	2	OZ	White Glue	MN0002	0
180914003	1891713	700400	1	10	EA	Wood Screws	MN0002	0
180914003	1891713	700115	2	3	EA	Drawer Asse...	MN0002	0
180914003	1891713	700119	3	1	SET	Drawer Hard...	MN0002	0
180914003	1891714	700130	1	3	OZ	Vamish	MN0002	0
180914003	1891714	820001	2	3	EA	Paint/Stain ...	MN0002	0
180914003	1891714	812001	3	2	QT	Paint - Seaf...	MN0002	0
180914003	1891714	700998	4	2	EA	Vamish Brus...	MN0002	0

On the Assembly Detail List tab, the components are listed for each routing.

6. Once you verify the data will be imported correctly, and there are no errors, use the **Import Data** button on the toolbar to import the data. You will see a notification when the import is complete.
7. Review the imported information via the MFG BOM maintenance screen.



## Import Workflow – item price import

For this portion of the tutorial, we will import inventory item prices. For our example, we will conduct an import of item prices using the **Import** button on the toolbar in the Items maintenance function.

**IMPORTANT:** Because there is a screen specifically for importing item pricing, it is not obvious that the item pricing import process still requires you to set up an import layout definition for the item pricing source file, as well as create an import map definition for item pricing before using the **Import** button on the Items maintenance screen. You set the default import map for IN item pricing in the SM business rules.

For IN item pricing, the important pieces of information include:

- Item number (Item ID)
- Inventory location (Location ID)

- Unit of measure (UOM)
- Price break ID
- Average price
- Minimum price
- List price
- Base price

Additional information that may be found in a source file includes currency ID (Global only) and custom fields and tag numbers.

With the import of item pricing, you have the option to create new pricing if no pricing exists, update pricing for only the pricing that currently exists, or both create new pricing and update existing pricing.

The item pricing import is able to copy pricing across all item locations, or calculate pricing for all units of measure using the unit conversion factor(s) from the Item file.

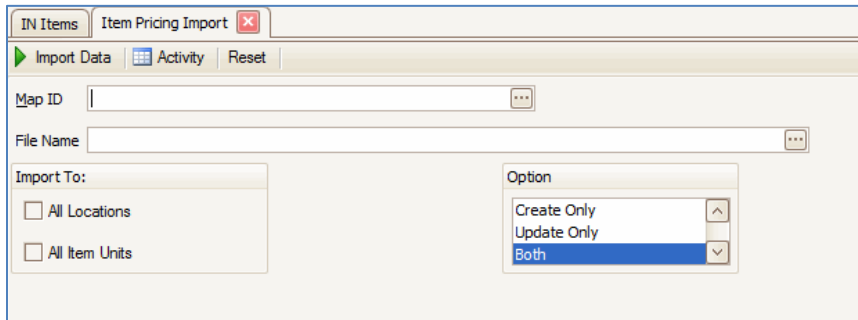
If you view the Price Info tab on the Items maintenance screen, you will see the fields that hold the data you can import: Item ID, Location, Unit of Measure (UOM), Qty Break ID, Average Price, Minimum Price, List Price, and Base Price. Note the Base Unit of measure.

The screenshot shows the 'IN Items' maintenance window. At the top, the 'Item ID' is 'M712' and the 'Description' is 'Paint All Purpose Green 17B'. The 'Base Unit' is set to 'OZ'. The 'Location' dropdown is set to 'MN0002'. The 'Price Info' tab is active, showing a table of pricing data for different units of measure.

Unit	Average Price	Base Price	List Price	Minimum Price	Qty Break ID
ML	0.0000	0.0000	0.0000	0.0000	
OZ	0.0000	0.0000	0.0000	0.0000	
QT	0.0000	0.0000	0.0000	0.0000	
*					



The Item Pricing Import screen allows you to choose the options when importing pricing information.



- The **All Locations** check box determines if the pricing will be imported to all locations in which the item is set up.
- The **All Item Units** check box allows you to import the pricing to all item units. If you import pricing for the item’s base unit of measure, the import process will use the conversion factor(s) to calculate the pricing for other units of measure.
- You can select to create pricing records that do not exist, updating existing records, or both updating existing records and creating new ones.

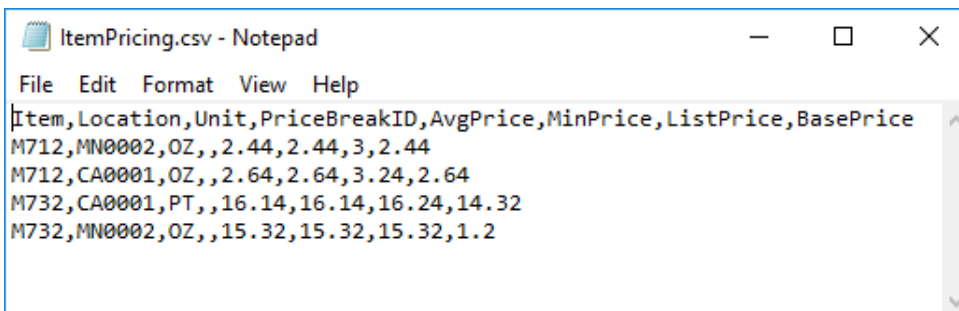
In our example, we will update the pricing for two different items:

Current:

Item: M712    Loc: MN0002    UOMs: OZ (base), PT, QT    No prices  
 Item: M732    Loc: CA0001, MN0002    UOMs: OZ (base), PT (MN0002 only), QT    No prices

Our source file looks like this:

	A	B	C	D	E	F	G	H
1	Item	Location	Unit	PriceBreakID	AvgPrice	MinPrice	ListPrice	BasePrice
2	M712	MN0002	OZ		2.44	2.44	3	2.44
3	M712	CA0001	OZ		2.64	2.64	3.24	2.64
4	M732	CA0001	PT		16.14	16.14	16.24	14.32
5	M732	MN0002	OZ		15.32	15.32	15.32	1.2
6								
7								

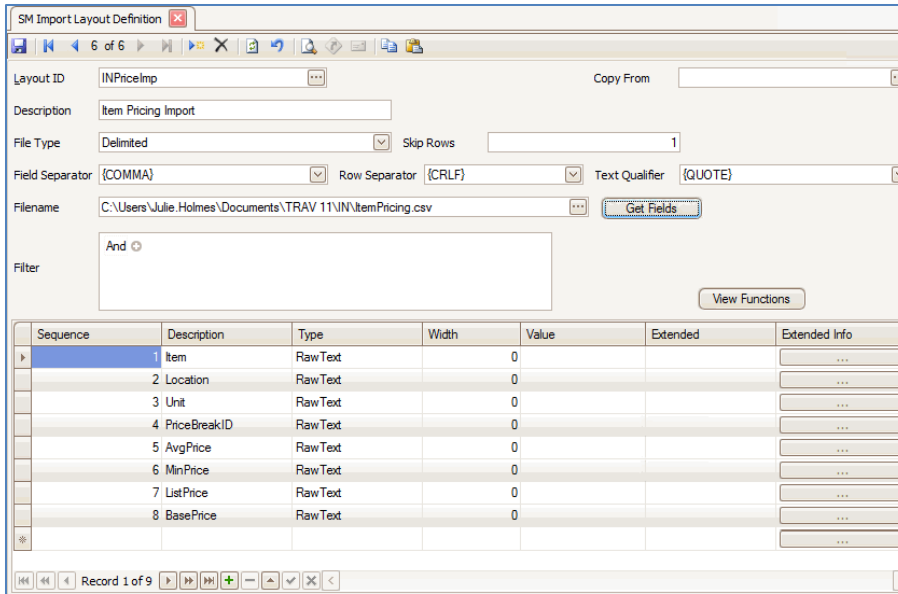


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Next you will create a new import layout definition. If necessary, you can reference page [5](#) for additional information about the import layout definition.

Open the Import Layout Definition screen from the SM Company Setup menu

1. Create a new layout ID using the **New Record** button on the toolbar and enter a **Layout ID** into the field.
2. Enter a **Description** for the layout.
3. Select a **File Type** from the drop-down list. The most common type is 'Delimited'.
4. In the **Skip Rows** field, enter the number of rows the system should skip before importing the data. If you have a title row for the columns, enter '1' to skip the first row.
5. In the **Field Separator** drop-down list, select the field separator used in the source file to separate the fields. A comma is the most common separator.
6. Select the row separator used in the source file from the **Row Separator** drop-down list. The most common separator is the 'CRLF' (carriage return line feed).
7. Select a **Text Qualifier** from the drop-down list. Text qualifiers are used when a field separator occurs within a field. The text qualifier—most commonly quotes—is placed around the field value to ensure the value is considered one field rather than two.
8. In the **Filename** field, enter the path and filename where the source file is located, or use the **Browse** button to navigate to the source file. Remember, the filename is not required at this point, but it allows you to utilize the Get Fields function to read the source file fields into the detail grid.
9. If you have the path and filename selected, you can use the **Get Fields** button to have the system read the column names from the source file and fill in the detail grid. Notice all fields have a **Type** of 'RawText'. If you do not select a path and filename, enter the column names from the source file into the detail grid with a data Type of 'RawText'. **Note:** Use RawText because all data is imported as text data.



10. The **Width** column will be set to '0' unless it is a fixed-length source file. You can adjust the width value of the fields as needed.

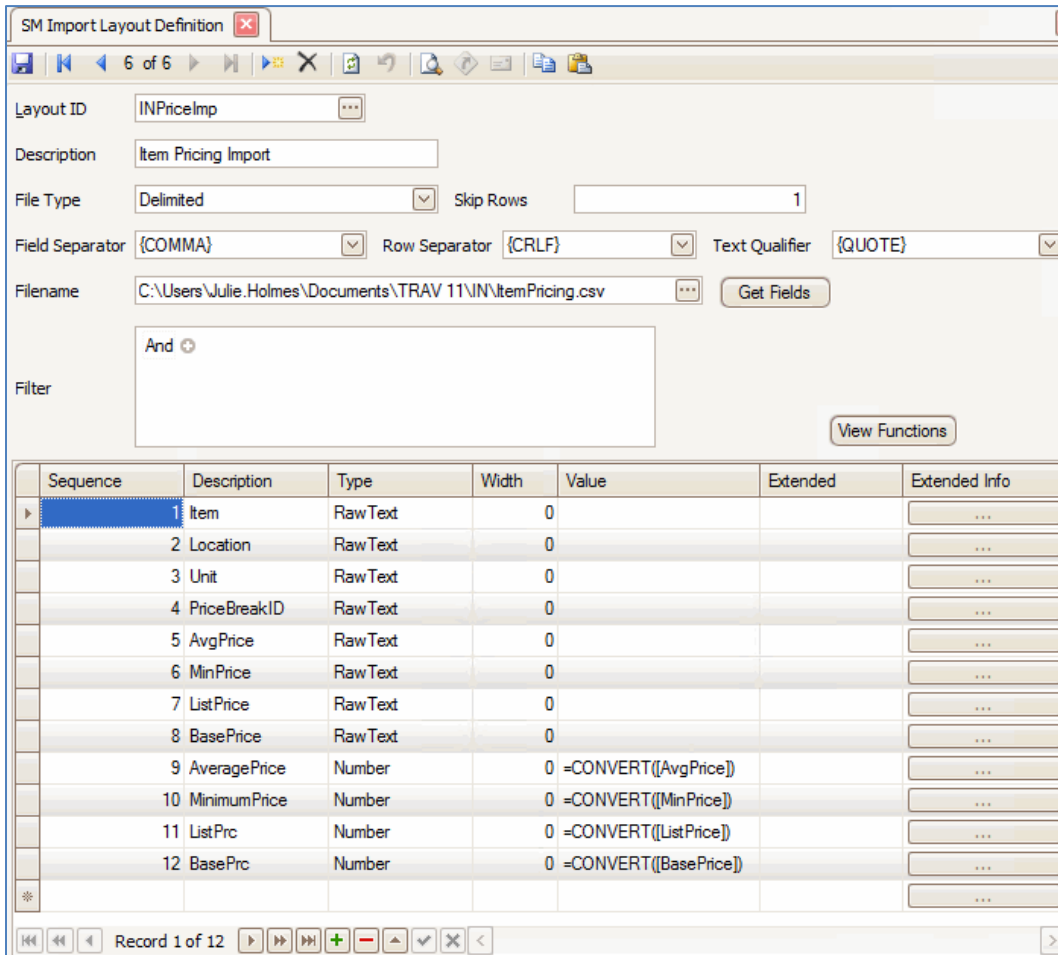
14. To import a default value for fields that have no value in the source file, enter the default value in the **Value** column. **Note:** The **Value** column determines the content of any non-RAWTEXT column, as well as holding functions that convert a value from one data type to another, remove leading or trailing spaces from the imported value, or pull only a portion of the imported value, among other things.

15. When you use a function to translate (convert) a value, you must set up a new record for the translation function. In the record for translation, enter a different name in the **Description** with the data type the final field should have. This is where the data type comes in. Review the table listing data types on page 11.

Sequence	Description	Type	Width	Value	Extended	Extended Info
1	Item	RawText	0			...
2	Location	RawText	0			...
3	Unit	RawText	0			...
4	PriceBreakID	RawText	0			...
5	AvgPrice	RawText	0			...
6	MinPrice	RawText	0			...
7	ListPrice	RawText	0			...
8	BasePrice	RawText	0			...
9	AveragePrice	Number	0	=CONVERT([AvgPrice])		...
10	MinimumPrice	Number	0	=CONVERT([MinPrice])		...
11	ListPrc	Number	0	=CONVERT([ListPrice])		...
12	BasePrc	Number	0	=CONVERT([BasePrice])		...

In this example, the price fields have data types of 'Number'. When we import those values, we need to convert them from RAWTEXT to NUMBER. To do this, we create a new field and use the CONVERT function.

11. If you want to filter records from the source file during the import, such as excluding certain bins or items, or including only certain lots or locations, use the **Filter** field to create a data filter as you would for interactive views.
12. Use the **Save** button on the toolbar to save the layout definition. For this example, this is the import layout definition for our import.



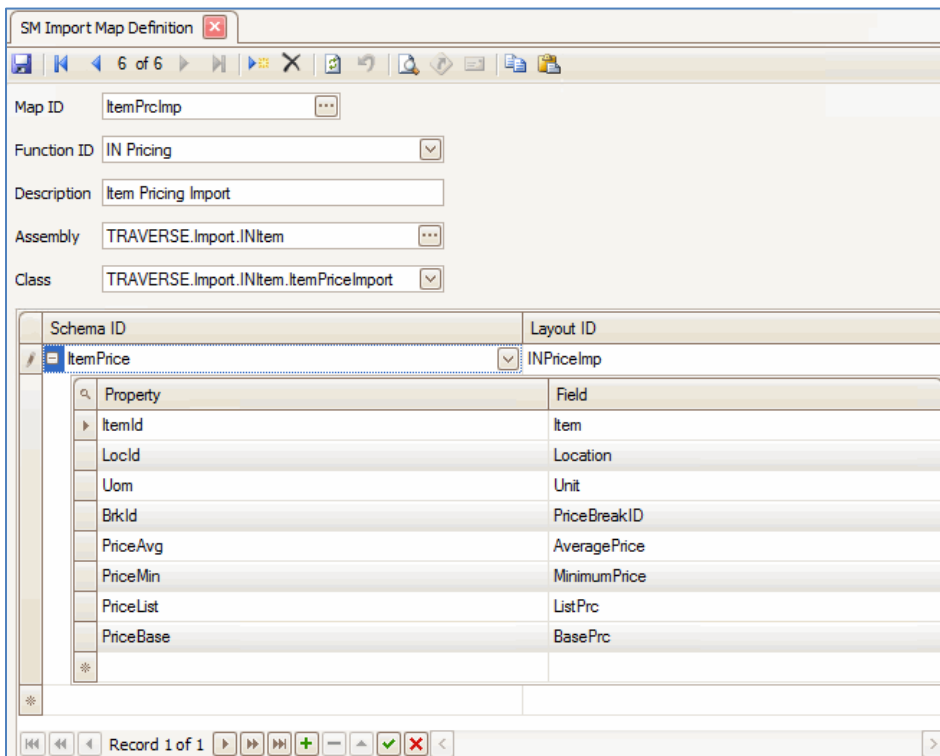
Next you will create a new import map definition. If necessary, you can reference page 7 for additional information about the import map definition.

For this example, we will use the inventory item pricing assembly provided with the software.

Open the Import Map Definition screen from the SM Company Setup menu.

1. Create a new import map definition using the **New Record** button on the toolbar and enter a **Map ID** into the field.
2. Select a **Function ID** for the map definition. We are importing item pricing, so select 'IN Pricing'.

3. Enter a **Description** for the import map definition.
4. Use the **Browse** button on the **Assembly** field to find the assembly to use for the import. The assemblies are located in the TRAVERSE directory. Reference the table on page 8 for details.
5. Once you select an assembly, the available class(es) will appear in the **Class** drop-down list. Select the class to use for the import.
6. Select the applicable **Schema ID** from the drop-down list.
7. In the **Layout ID** drop-down list, select the layout definition you just created for the inventory item pricing import.
8. Click on the plus sign beside the **Schema ID** to expand the properties grid. This is where you will map the TRAVERSE fields to the source file fields. Remember, you do not have to use all the fields listed in the Property drop-down list. There may also be fields in the layout that you do not use for the import.
9. Select a schema **Property** from the drop-down list. Select the corresponding **Field**. Repeat the process until you have selected all the fields you want to import from the source file.



Note that the 'AveragePrice' field is the converted field, not the original 'AvgPrice' field from the source file. That way the value imported into the 'PriceAvg' field matches the data type.

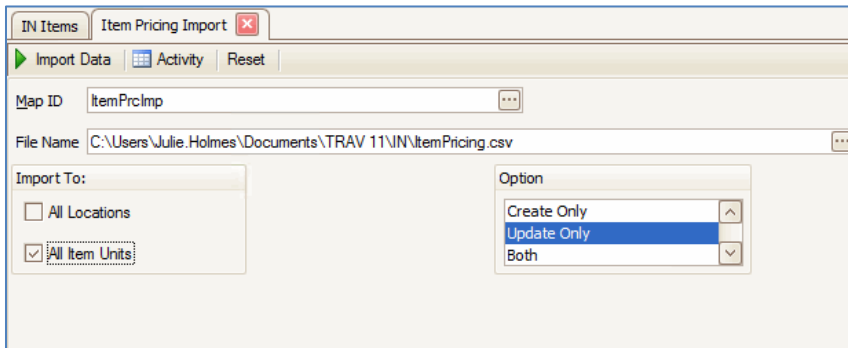
10. Once you have mapped all the fields you want to import, **Save** the import map definition.

**TIP:** Use the SM Import Mapped Data function to read and verify the source file and check the validity of the import layout and import map.

Once you have the map definition created, you can import the data. Before you can select the map definition you just created in the Item Pricing Import screen, *you must log out, then log back into TRAVERSE.*

Open the IN Items maintenance screen and use the **Import** button on the toolbar to open the Item Pricing Import screen.

1. Select the map definition you want to import from the **Map ID** drop-down list.
2. Verify the **File Name**. If necessary, browse to the source file.

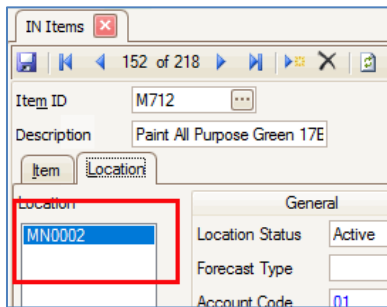


3. If you want to import the prices to all the inventory locations in which the items are set up, mark the **All Locations** check box. For our example, we will leave this check box blank.
4. If you want the pricing to be applied to all of the items' units of measure, mark the **All Item Units** check box. For our example, we will mark this check box.
5. In the Option section, to create pricing records that do not currently exist, select the 'Create Only' option. If you want to only update pricing records that do exist, select the 'Update Only' option. To create pricing records and update existing records, select 'Both'. We will select to update only existing records for our example.
6. To run the import process, use the **Import Data** button on the toolbar.
7. When the import process is complete, you will receive a notification. The Item Pricing Import Log will also appear listing errors.

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Item Pricing Import Log				20180919182153
Item ID	Location ID	UOM	Error Message	
M712	CA0001	OZ	Invalid Item Location for detail processing	
M712	CA0001	PT	Invalid Item Location for detail processing	
M712	CA0001	QT	Invalid Item Location for detail processing	
M732	MN0002	PT	Invalid for detail processing	
M732	MN0002	OZ	Minimum price must be less than Base and List prices.	
M732	MN0002	QT	Minimum price must be less than Base and List prices.	
9/19/2018 1:21 PM			*** End of Report ***	

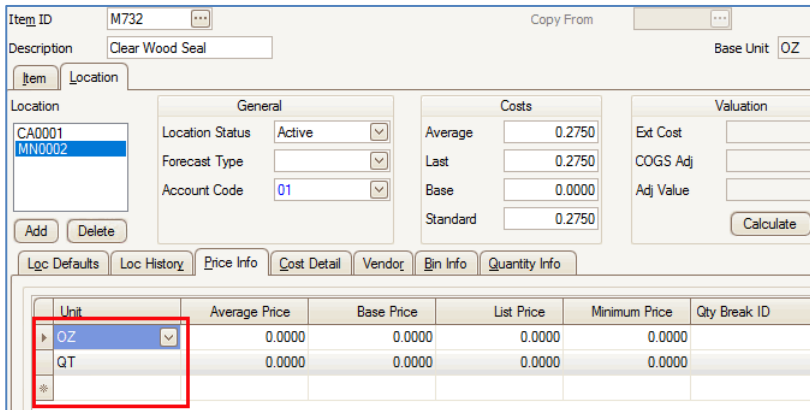
Review and correct the errors listed. In our example:

**Error: Invalid Item Location**



The only location listed for item M712 is 'MN0002'. The import file lists an entry for location 'CA0001', which is not in the item's location list. Because we chose to update only, and the location is not valid, the pricing was not imported. This error can be corrected by selecting to create a new pricing record and redoing the import. The location 'CA0001' will not be created by the import process for the item, but the pricing will be updated for the existing location.

**Error: Invalid for detail processing**



The pricing is listed for the UOM of 'PT'. There is no 'PT' set up for the location of 'MN0002'. Because we chose to update only, and the unit is not valid, the pricing was not imported. This error can be corrected by selecting to create a new pricing record and redoing the import.

**Error: The minimum price must be less than base and list prices**

	A	B	C	D	E	F	G	H
	Item	Location	Unit	PriceBreakID	AvgPrice	MinPrice	ListPrice	BasePrice
1	M712	MN0002	OZ		2.44	2.44	3	2.44
2	M712	CA0001	OZ		2.64	2.64	3.24	2.64
3	M732	CA0001	PT		16.14	16.14	16.24	14.32
4	M732	MN0002	OZ		15.32	15.32	15.32	1.2
5								
6								
7								

The base price is lower than it should be, causing the minimum price to be higher, which is invalid. This can be corrected directly in the source file.

Let's try again:

8. Mark the **All Locations** check box to import the prices to all the inventory locations. This should correct the error involving missing locations.
9. If you want the pricing to be applied to all of the items' units of measure, mark the **All Item Units** check box. For our example, we will mark this check box.
10. In the Option section, to create pricing records that do not currently exist, select the 'Both' option to create pricing records and update existing records. This should correct the errors involving missing locations and units of measure.
11. To run the import process, use the **Import Data** button on the toolbar.
12. When the import process is complete, you will receive a notification. The Item Pricing Import Log will also appear listing errors. The log is now empty, meaning the import updated and created pricing records as required.

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Item Pricing Import Log			
			Page 1
			20180919185328
Item ID	Location ID	UOM	Error Message
9/19/2018 1:53 PM			*** End of Report ***

We can check what the update did:

Unit	Average Price	Base Price	List Price	Minimum Price	Qty Break ID
OZ	2.6400	2.6400	3.2400	2.6400	
PT	42.2400	42.2400	51.8400	42.2400	
QT					

	A	B	C	D	E	F	G	H
	Item	Location	Unit	PriceBreakID	AvgPrice	MinPrice	ListPrice	BasePrice
2	M712	MN0002	OZ		2.44	2.44	3	2.44
3	M712	CA0001	OZ		2.64	2.64	3.24	2.64
4	M732	CA0001	PT		16.14	16.14	16.24	14.32
5	M732	MN0002	OZ		5.01	5.01	6.5	5.25
6								
7								

Because we selected to affect all locations, the import first updated prices as listed in row 2 of the source file. The next record updated prices in location CA0001 specifically, but because we chose 'All Locations', and the import reads the source file in sequence, the pricing in location MN0002 was updated to the values in row 3.



The screenshot shows a software interface for item pricing. The top section displays item details for Item ID M732, Description 'Clear Wood Seal', and Location CA0001. Below this are tabs for 'Price Info', 'Cost Detail', 'Vendor', 'Bin Info', and 'Quantity Info'. A table shows pricing for units OZ, PT, and QT. A second table below shows a data import grid with columns A-H and rows 1-7. Red boxes and arrows highlight specific data points in both tables.

Unit	Average Price	Base Price	List Price	Minimum Price	Qty Break
OZ	5.0100	5.2500	6.5000	5.0100	
PT	80.1600	84.0000	104.0000	80.1600	
QT	160.3200	168.0000	208.0000	160.3200	

	A	B	C	D	E	F	G	H
1	Item	Location	Unit	PriceBreakID	AvgPrice	MinPrice	ListPrice	BasePrice
2	M712	MN0002	OZ		2.44	2.44	3	2.44
3	M712	CA0001	OZ		2.64	2.64	3.24	2.64
4	M732	CA0001	PT		16.14	16.14	16.24	14.32
5	M732	MN0002	OZ		5.01	5.01	6.5	5.25
6								
7								

Because we selected to both create and update pricing records, as well as all units, the record for item M732 unit of PT was added. Also note that the pricing reflects the last record in sequence in the source file because we chose to update and create across 'All Locations'.